

Application No. 09/964,221  
SD-7650

## REMARKS

### Claim Status:

Claims 1-41 are pending.

Claims 1-41 are rejected.

### Claim Amendments:

Claims 1 and 23-41 are cancelled.

Claims 2, 3, 5, 9, 17, 20 and 22 are currently amended to depend from new claim 42.

### New Claims:

New claims 42-47 have been added. No new matter has been added, and the Specification fully supports the new claims.

## Claim Rejections

### Rejections under 35 USC §103(a)

Claims 1-41 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Bianco et al.* in view of *Meister et al.*

Claim 1 is currently cancelled, and has been replaced with new claim 42. Claims 2, 3, 5, 9, 17, 20 and 22 are currently amended to depend from claim 42. Claims 23-41 are cancelled. New claims 43-47 depend from claim 42.

The transformation recited in claim 42, which transforms unencrypted data, Y, to encrypted data, U, has the property that the unencrypted Euclidean distance metric, E, is equal to the encrypted Euclidean distance metric, D. In Example 1 of the instant application (i.e., weapons inspection), the inspector needs to authenticate the weapon type, but is restricted from observing the un-encrypted signal. Therefore, he must rely on a comparison of a pair of encrypted signals (to conceal the classified, original spectral data). The metric value based on encrypted signals must be identical to the metric value based on

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the un-encrypted signals (from which the encrypted signals were derived) in order for the inspector to make an appropriate decision whether to authenticate the item or not. In other words, the inspector must be able to come to the same conclusion using encrypted signals that he would have come to if he had used the classified, un-encrypted signals.

Not all transformations that are used to encrypt data have this special property. In particular, neither *Bianco* or *Meister* teach a transformation that has this property. Hence, a prima facie case of obviousness cannot be supported.

Accordingly, claims 2-22 and 42-47 are now in condition for allowance.

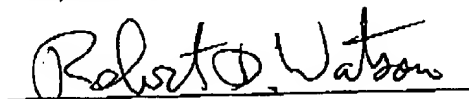
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### CONCLUSION

Applicants have responded to each and every objection and rejection, and urge that claims claims **2-22** and **42-47** as presented and amended are now in condition for allowance. Applicants request expeditious processing to issuance.

The Office is authorized to charge **Deposit Account # 19-0131** for any necessary fees regarding this response, including \$ 790 for a RCE fee, and any fees necessary for extensions of time to reply.

Respectfully submitted,



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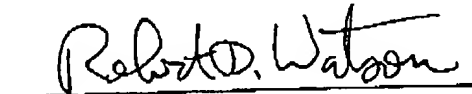
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